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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/568,784	02/14/2006	Manfred A. A. Lupke	SWH-12178US	6393
7590 S Warren Hall Dennison Associates Suite 301 133 Richmond Street West Toronto, ON M5H 2L7 CANADA			EXAMINER LEYSON, JOSEPH S	
			ART UNIT 1722	PAPER NUMBER
SHORTENED STATUTORY PERIOD OF RESPONSE			MAIL DATE	DELIVERY MODE
3 MONTHS			01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/568,784	LUPKE ET AL.	
	Examiner	Art Unit	
	Joseph Leyson	1722	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☒ Claim(s) 3-5 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 31. The examiner believes that "3" in fig. 3 should be changed to --31--.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: "12" in fig. 1. The designation of "12" in fig. 1 is incorrect in view of fig. 3 properly using "12" as understood from the disclosure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures

appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the subject matter of claims 9 and 10 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner,

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the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the subject matter of claims 9 and 10.

Claim Objections

5. Claims 3-5 are objected to because of the following informalities: for clarity, in claim 3, "21,25)" should be changed to --(21, 25)--; and in claim 5, line 6, --said-- should be inserted before "air".
Appropriate correction is required.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 12, 14, 16 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Dickhut et al. (U.S. Patent 4,439,130).

Dickhut et al. (U.S. Patent 4,439,130) teaches a molding apparatus including a moving mold defined by mold block sections or halves 110, 112 for shaping molten plastic into product made within said moving mold, said moving mold being surrounded by an air block housing 172 to define a cooling chamber exteriorly around said moving

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mold, a source of cooling air located externally of said air block housing 172, ducting 164, 166 from said cooling air source to said air block housing 172, a blower for moving the cooled air from said cooling air source through said ducting 164, 166 into the air block housing to circulate therein (i.e., col. 6, lines 48-68), the cooling air being contained by said housing 172 within said cooling chamber to act on and provide cooling of said moving mold, and die tooling 198 for feeding into the moving mold at one end of the housing. The moving mold includes a pipe corrugator traveling in a horizontal direction through the cooling chamber (i.e., figs. 1-4 and 7). The air block housing is further defined by plenum 168 and upstanding walls (i.e., fig. 5; col. 7, lines 12-19). The mold block halves 110, 112 move in a downstream direction through said cooling chamber in a closed mold block configuration (i.e., fig. 4) and move upstream of said cooling chamber in an open mold block section configuration (i.e., fig. 5), the apparatus further including first and second heat exchangers 170 located to opposite first and second sides of said moving mold and directed at said mold block halves in the closed mold block configuration (i.e., fig. 4), and further including third and fourth heat exchangers 176 to opposite third and fourth sides of said moving mold and directed at said mold block halves in the open mold block section configuration (fig. 5). Note that applicant's specification (p. 5, lines 9-11) discloses that blowers produce heat exchange (i.e. air movement means are heat exchangers).

8. Claims 1, 2, 8, 14 are rejected under 35 U.S.C. 102(b) as being anticipated by Schriener (U.S. Patent 3,066,351).

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Schriner (U.S. Patent 3,066,351) teaches a molding apparatus including a moving mold defined by belts 15-17 (i.e., col. 2, lines 18-44) for shaping molten plastic into product made within said moving mold, die tooling 31 for feeding into the moving mold, said moving mold being surrounded by an air block housing 33 to define a cooling chamber exteriorly around said moving mold, an external source of cooling air from a cooling air unit (i.e., refrigerated air; col. 3, lines 29-34), ducts 34 for conducting the cooling air to the housing 33, the cooling air being contained by said housing 33 within said cooling chamber to act on and provide cooling of said moving mold. The housing is made of refractory material (col. 3, lines 28-30) (i.e., the housing is insulated). The moving mold travels in a horizontal direction through the cooling chamber (i.e., figs. 1 and 2).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to

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consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 3-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schriener (U.S. Patent 3,066,351) in view of Lupke et al. (U.S. Patent 5,525,289).

Schriener (U.S. Patent 3,066,351) discloses the apparatus substantially as claimed, as mentioned above, except for the source of cooling air being cooled ambient air, for the cooling unit being located internally, or for a heater for heating the die tooling.

Lupke et al. (U.S. Patent 5,525,289) discloses an external cooling air source being cooled ambient air (i.e., col. 2, lines 45-60). The source of cooling air can also be a cooling air unit 67 located internally of the apparatus with a blower 66 for circulating the cooling air (i.e., fig. 6). A die tooling 3 feeds into a moving mold and is heated to extrude material in a molten state (i.e., col. 2, lines 32-36).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the source of cooling air of Schriener (U.S. Patent 3,066,351) to be cooled ambient air because such sources of cooling air are well known and conventional in the plastics shaping art as disclosed by Lupke et al. (U.S. Patent 5,525,289), to modify the source of cooling air of Schriener (U.S. Patent 3,066,351) to be a cooling unit within the apparatus because it is well known and conventional in the plastics shaping art that cooling units for providing cooling air can be located internally or externally of an apparatus as disclosed by Lupke et al. (U.S. Patent 5,525,289), to modify the apparatus of Schriener (U.S. Patent 3,066,351) with a blower because a blower is a well known and conventional means for moving air in the plastics shaping art

as disclosed by Lupke et al. (U.S. Patent 5,525,289), and/or to modify the die tooling of Schriener (U.S. Patent 3,066,351) with a heater because such a heater would heat the die tooling enabling delivery of material in a molten state. Furthermore, mere rearrangement of parts (i.e., internal vs. external cooling unit) wherein the operation of the apparatus is not changed is obvious, In re Japikse, 86 USPQ 70.

12. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schriener (U.S. Patent 3,066,351) in view of Horner et al. (U.S. Patent 5,057,171).

Schriener (U.S. Patent 3,066,351) discloses the apparatus substantially as claimed, as mentioned above, except for access doors.

Horner et al. (U.S. Patent 5,057,171) disclose an access door 20 for providing operator access to a housing 10 (i.e., col. 3, lines 26-34).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the housing of Schriener (U.S. Patent 3,066,351) with access doors because such a modification would enable operator access to the housing as disclosed by Horner et al. (U.S. Patent 5,057,171).

13. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schriener (U.S. Patent 3,066,351) in view of Horner et al. (U.S. Patent 5,057,171) as applied to claim 9 above, and further in view of Woyden (U.S. Patent 3,636,863).

Woyden (U.S. Patent 3,636,863) discloses an alarm upon opening an access door to alert an operator (i.e., claim 1).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to further modify the apparatus with an alarm upon opening of the

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access doors because such a modification would enable an operator to be alerted when an access door is open as disclosed by Woyden (U.S. Patent 3,636,863).

14. Claims 2-7 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickhut et al. (U.S. Patent 4,439,130) in view of Lupke et al. (U.S. Patent 5,525,289).

Dickhut et al. (U.S. Patent 4,439,130) disclose the apparatus substantially as claimed, as mentioned above, except for the source of cooling air being cooled ambient air or a cooling air unit, for a cooling unit located internally, or for a heater for heating the die tooling.

Lupke et al. (U.S. Patent 5,525,289) discloses a cooling air source being cooled ambient air, an external cooling air unit including a cooler, or a combination of both (i.e., col. 2, lines 45-60). The source of cooling air can also be a cooling air unit 67 located internally of the apparatus with a blower 66 for circulating the cooling air (i.e., fig. 6). A die tooling 3 feeds into a moving mold and is heated to extrude material in a molten state (i.e., col. 2, lines 32-36)

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the source of cooling air of Dickhut et al. (U.S. Patent 4,439,130) to be cooled ambient air or air from a cooling unit because such sources of cooling air are well known and conventional in the pipe corrugating art as disclosed by Lupke et al. (U.S. Patent 5,525,289), or to modify the source of cooling air of Dickhut et al. (U.S. Patent 4,439,130) to be a cooling unit within the apparatus because it is well known and conventional in the pipe corrugation art that cooling units for providing

cooling air can be located internally or externally of an apparatus as disclosed by Lupke et al. (U.S. Patent 5,525,289), or to modify the die tooling of Dickhut et al. (U.S. Patent 4,439,130) with a heater because it is well known and conventional in the art for die tooling to be heated for extruding material in a molten state. Furthermore, mere rearrangement of parts (i.e., internal vs. external cooling unit) wherein the operation of the apparatus is not changed is obvious, In re Japikse, 86 USPQ 70.

15. Claims 13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickhut et al. (U.S. Patent 4,439,130) in view of Floyd et al. (U.S. Patent Application Publication US 2003/0151172).

Dickhut et al. (U.S. Patent 4,439,130) disclose the apparatus substantially as claimed, as mentioned above, except for the source of cooling air being cooled ambient air or a cooling air unit, or for a cooling unit located internally.

Floyd et al. (U.S. Patent Application Publication US 2003/0151172) discloses a moving mold can travel either in a horizontal or vertical direction (i.e., figs. 1-3 and 5; paragraph [0009]) and a product cooler 56 for further cooling of the product 72 downstream of the moving mold, said product cooler 56 being inline with and receiving a plastic product 72 from said moving mold (i.e., fig. 2) and comprising a cooler housing 186 around the product, and a heat exchanger 192 within said cooler housing, said heat exchanger 192 in said cooler housing 186 providing cooled air which is trapped within the cooler housing 186 to act on the product 72 after the product is released from the moving mold (i.e., fig. 16; paragraph [0080]).

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to modify the moving mold of Dickhut et al. (U.S. Patent 4,439,130) to travel in a vertical direction because it is well known and conventional in the art that a moving mold can travel either horizontally or vertically, as disclosed by Floyd et al. (U.S. Patent Application Publication US 2003/0151172), or to modify the apparatus of Dickhut et al. (U.S. Patent 4,439,130) with the product cooler of Floyd et al. (U.S. Patent Application Publication US 2003/0151172) because such a modification would enable further cooling of the product downstream of the moving mold.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Weppert et al. (U.S. Patent 5,164,204) is cited as of interest to show the state of the art.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph Leyson whose telephone number is (571) 272-5061. The examiner can normally be reached on M-F 9AM-5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gupta Yogendra can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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12/29/06